

QUALITY ASSESSMENT OF IMAGE FUSION

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ABSTRACT:

Earth monitoring satellites provide us with various data in different parts of electromagnetic spectrum with a spectral, temporal and spatial quality. In order to make a complete use of image fusions have been developed. Image fusion is basically, a combination of two or more different images to form a new image by using a specific and defined algorithm.. The aim is to detect the data depicted in the image, in order to escalate interpretability of images, as well as increasing the accuracy of date. In order to examine reliability of the data obtained from fusion in both spatial and spectral dimensions, and also to compare and evaluate different methods of fusion by using different methods of evaluation, we try to study the quality of combined images. Methods which were used for spatial evaluation are: blur parameter, local variance, Zhou and autocorrelation.

However, the point is than all these evaluating methods, lack enough accuracy and reliability for an assessment, because they each do the evaluation on the basis of their own specific criteria and specifications. Therefore, all these methods should be examined; their results should be compared with reality, and select the best method for evaluating spatial and spectral quality. Results have shown the fact that in comparison to other spatial evaluation methods; blur parameter and autocorrelation were most suitable and most accurate.